



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R03-OAR-2011-0924; FRL-9653-9]

**Approval and Promulgation of Air Quality Implementation Plans;
Pennsylvania; Nonattainment New Source Review; Fine Particulate Matter (PM_{2.5})**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve a State Implementation Plan (SIP) revisions submitted by the Commonwealth of Pennsylvania. These revisions pertaining to Pennsylvania's nonattainment New Source Review (NSR) program incorporate preconstruction permitting regulations for fine particulate matter (PM_{2.5}) into the Pennsylvania SIP. EPA is approving these revisions in accordance with the requirements of the Clean Air Act (CAA).

DATES: Written comments must be received on or before [insert date 30 days from date of publication].

ADDRESSES: Submit your comments, identified by Docket ID Number **EPA-R03-OAR-2011-0924** by one of the following methods:

- A. www.regulations.gov. Follow the on-line instructions for submitting comments.
- B. E-mail: cox.kathleen@epa.gov.
- C. Mail: EPA-R03-OAR-2011-0924, Kathleen Cox, Associate Director, Office of Permits and Air Toxics, Mailcode 3AP10, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103.
- D. Hand Delivery: At the previously-listed EPA Region III address. Such deliveries are only

accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. **EPA-R03-OAR-2011-0924**. EPA's policy is that all comments received will be included in the public docket without change, and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or e-mail. The www.regulations.gov website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through www.regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the electronic docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form.

Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. Copies of the State submittal are available at the Pennsylvania Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

FOR FURTHER INFORMATION CONTACT: Gerallyn Duke, (215) 814-2084, or by e-mail at duke.gerallyn@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document, whenever “we,” “us,” or “our” is used, we mean EPA. On September 23, 2011, the Pennsylvania Department of Environmental Protection (PADEP) submitted a formal revision to its State Implementation Plan (SIP).

I. Background

The SIP revision consists of amendments to 25 Pa. Code Chapter 121, “General Provisions;” and Chapter 127, “Construction, Modification, Reactivation and Operation of Sources.” This SIP revision submitted by Pennsylvania will satisfy requirements that are set forth in the federal rule, “Implementation of the New Source Review (NSR) Program for Particulate Matter less than 2.5 Micrometers (PM_{2.5})” (NSR PM_{2.5} Rule), which was promulgated on May 16, 2008 (73 FR 28321).

A. Fine Particulate Matter and the NAAQS

Fine particles in the atmosphere are made up of a complex mixture of components. Common constituents include sulfate (SO_4); nitrate (NO_3); ammonium; elemental carbon; a great variety of organic compounds; and inorganic material (including metals, dust, sea salt, and other trace elements) generally referred to as “crustal” material, although it may contain material from other sources. Airborne particulate matter (PM) with a nominal aerodynamic diameter of 2.5 micrometers or less (a micrometer is one-millionth of a meter, and 2.5 micrometers is less than one-seventh the average width of a human hair) are considered to be “fine particles” and are also known as $\text{PM}_{2.5}$. “Primary” particles are emitted directly into the air as a solid or liquid particle (e.g., elemental carbon from diesel engines or fire activities, or condensable organic particles from gasoline engines). “Secondary” particles (e.g., sulfate and nitrate) form in the atmosphere as a result of various chemical reactions.

The health effects associated with exposure to $\text{PM}_{2.5}$ include potential aggravation of respiratory and cardiovascular disease (i.e., lung disease, decreased lung function asthma attacks and certain cardiovascular issues). Epidemiological studies have indicated a correlation between elevated $\text{PM}_{2.5}$ levels and premature mortality. Groups considered especially sensitive to $\text{PM}_{2.5}$ exposure include older adults, children, and individuals with heart and lung diseases. For more details regarding health effects and $\text{PM}_{2.5}$ see EPA’s Web site at <http://www.epa.gov/oar/particlepollution/> (see heading “Health and Welfare”).

On July 18, 1997, EPA revised the NAAQS for PM to add new standards for fine particles, using $\text{PM}_{2.5}$ as the indicator. Previously, EPA used PM_{10} (inhalable particles smaller than or equal to 10 micrometers in diameter) as the indicator for the PM NAAQS. EPA established health-based (primary) annual and 24-hour standards for $\text{PM}_{2.5}$, setting an annual standard at a level of 15

micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and a 24-hour standard at a level of $65 \mu\text{g}/\text{m}^3$ (62 FR 38652). At the time the 1997 primary standards were established, EPA also established welfare-based (secondary) standards identical to the primary standards. The secondary standards are designed to protect against major environmental effects of $\text{PM}_{2.5}$, such as visibility impairment, soiling, and materials damage. On October 17, 2006, EPA revised the primary and secondary NAAQS for $\text{PM}_{2.5}$. In that rulemaking, EPA reduced the 24-hour NAAQS for $\text{PM}_{2.5}$ to $35 \mu\text{g}/\text{m}^3$ and retained the existing annual $\text{PM}_{2.5}$ NAAQS of $15 \mu\text{g}/\text{m}^3$ (71 FR 61236).

B. Implementation of NSR Requirements for $\text{PM}_{2.5}$ – the NSR $\text{PM}_{2.5}$ Rule

After EPA promulgated the NAAQS for $\text{PM}_{2.5}$ on October 23, 1997, the Agency issued a guidance document written by John Seitz entitled “Interim Implementation of New Source Review Requirements for $\text{PM}_{2.5}$ ” (Seitz memo). The Seitz memo was designed to help states implement NSR requirements pertaining to the new $\text{PM}_{2.5}$ NAAQS in light of technical difficulties posed by $\text{PM}_{2.5}$ at that time. Specifically, the Seitz memo states: “ PM_{10} may properly be used as a surrogate for $\text{PM}_{2.5}$ in meeting NSR requirements until these difficulties are resolved.”

EPA also issued a guidance document entitled “Implementation of New Source Review Requirements in $\text{PM}_{2.5}$ Nonattainment Areas” (the “2005 $\text{PM}_{2.5}$ Nonattainment NSR Guidance”), on April 5, 2005, the date that EPA’s $\text{PM}_{2.5}$ nonattainment area designations became effective for the 1997 NAAQS. This memorandum provided guidance on the implementation of the nonattainment major NSR provisions in $\text{PM}_{2.5}$ nonattainment areas in the interim period between the effective date of the $\text{PM}_{2.5}$ nonattainment area designations (April 5, 2005) and EPA’s promulgation of final $\text{PM}_{2.5}$ nonattainment NSR regulations. Besides reaffirming the continuation of the PM_{10} Surrogate Policy for $\text{PM}_{2.5}$ attainment areas set forth in the Seitz memo,

the 2005 PM_{2.5} nonattainment NSR Guidance recommended that until EPA promulgated the PM_{2.5} major NSR regulations, “States should use a PM₁₀ nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM_{2.5} NAAQS.”

On May 16, 2008, EPA finalized a rule (the NSR PM_{2.5} Rule) to implement the 1997 PM_{2.5} NAAQS, including changes to the NSR program (73 FR 28321). The 2008 NSR PM_{2.5} Rule revised the NSR program requirements to establish the framework for implementing preconstruction permit review for the PM_{2.5} NAAQS in both attainment and nonattainment areas. The 2008 NSR PM_{2.5} Rule required that major stationary sources seeking permits must directly satisfy the PM_{2.5} requirements, as of the effective date of the rule, rather than relying on PM₁₀ as a surrogate, with two exceptions. The first exception was a “grandfathering” provision in the Federal PSD program at 40 CFR 52.21(i)(1)(xi). This grandfathering provision applied to sources that had applied for, but had not yet received, a final and effective PSD permit before the July 15, 2008, effective date of the May 2008 final rule. The second exception was that states with SIP-approved PSD programs could continue to implement the Seitz Memo’s PM₁₀ Surrogate Policy for up to three years (until May 2011) or until the individual revised state PSD programs for PM_{2.5} are approved by EPA, whichever came first. For additional information on the NSR PM_{2.5} Rule, see (73 FR 28321). On February 11, 2010, EPA proposed to repeal the grandfathering provision for PM_{2.5} contained in the federal PSD program at 40 CFR 52.21(i)(1)(xi) and to end early the PM₁₀ Surrogate Policy applicable in states that have a SIP approved PSD program (75 FR 6827). In support of this proposal, EPA explained that the PM_{2.5} implementation issues that led to the adoption of the PM₁₀ Surrogate Policy in 1997 have been largely resolved to a degree sufficient for sources and permitting authorities to conduct

meaningful permit-related PM_{2.5} analyses. The repeal of the grandfathering rule was finalized on May 18, 2011 (76 FR 28646).

The 2008 NSR PM_{2.5} Rule also established the following NSR requirements to implement the PM_{2.5} NAAQS: (1) require NSR permits to address directly emitted PM_{2.5} and precursor pollutants; (2) establish significant emission rates for direct PM_{2.5} and precursor pollutants (including sulfur dioxide (SO₂) and oxides of nitrogen NO_x); (3) establish PM_{2.5} emission offsets; and (4) require states to account for gases that condense to form particles (condensables) in PM_{2.5} emission limits.

Additionally, the 2008 final rule authorized states to adopt provisions in their nonattainment NSR rules that would allow major stationary sources and major modifications locating in areas designated nonattainment for PM_{2.5} to offset emissions increases of direct PM_{2.5} emissions or PM_{2.5} precursors with reductions of either direct PM_{2.5} emissions or PM_{2.5} precursors in accordance with offset ratios contained in the approved SIP for the applicable nonattainment area. The inclusion, in whole or in part, of the interpollutant offset provisions for PM_{2.5} is discretionary on the part of the states. In the preamble to the 2008 final rule, EPA included preferred or presumptive offset ratios, applicable to specific PM_{2.5} precursors that states may adopt in conjunction with the new interpollutant offset provisions for PM_{2.5}, and for which the state could rely on the EPA's technical work to demonstrate the adequacy of the ratios for use in any PM_{2.5} non attainment area. Alternatively, the preamble indicated that states may adopt their own ratios, subject to the EPA's approval, that would have to be substantiated by modeling or other technical demonstrations of the net air quality benefit for ambient PM_{2.5} concentrations. The preferred ratios were subsequently the subject of a petition for

reconsideration, which the Administrator granted. EPA continues to support the basic policy that sources may offset increases in emissions of direct PM_{2.5} or of any PM_{2.5} precursor in a PM_{2.5} nonattainment area with actual emissions reductions in direct PM_{2.5} or PM_{2.5} precursors in accordance with offset ratios as approved in the SIP for the applicable nonattainment area. However, we no longer consider the preferred ratios set forth in the preamble to the 2008 final rule for PM_{2.5} NSR implementation to be presumptively approvable. Instead, any ratio involving PM_{2.5} precursors adopted by the state for use in the interpollutant offset program for PM_{2.5} nonattainment areas must be accompanied by a technical demonstration that shows the net air quality benefits of such ratio for the PM_{2.5} nonattainment area in which it will be applied.

II. Summary of SIP Revision

The SIP revision submitted by Pennsylvania consists of amendments to the general provisions of 25 Pa. Code Chapters 121 and major nonattainment NSR permitting regulations of 25 Pa. Code Chapter 127. The revision fulfills the federal program requirements established by the EPA rulemaking actions discussed above for nonattainment areas. The amendments establish the major source threshold, significant emission rate and offset ratios for PM_{2.5}, establish nitrogen oxides (NO_x) and sulfur dioxide (SO₂) as precursors to PM_{2.5}, and establish interpollutant trading for offsets and NSR applicability to PM_{2.5} precursor pollutants, pursuant to the May 2008 NSR PM_{2.5} Rule. Pennsylvania's proposed SIP revision does not include the "grandfathering" and presumptively approvable interpollutant trading ratio provisions that have subsequently been repealed/reconsidered. Clarifying amendments, described below, for Chapter 127 are also made. Finally, minor editorial changes are included in the amendments.

Section 127.203a(a)(2) is amended to clarify that aggregation of de minimis emissions for PM_{2.5} and PM_{2.5} precursors is not required. Section 127.206(o) is amended to clarify that, except as provided in Section 127.210 (which addresses offset ratios), an emission reduction credit (ERC) created for a regulated criteria pollutant shall only be used for offsetting or netting an emission increase involving the same criteria pollutant unless approved by PADEP. Section 127.203(b)(1)(i) is amended to clarify that the owner or operator must use the existing provisions in Section 127.203(b)(2) or (3) for a determination of control technology requirements when the net emission increase is equal to or exceeds the applicable emissions rate that is significant.

The amendments add a definition of “PM_{2.5}.” The amendments revise the definitions of existing terms “regulated NSR pollutant” and “significant” to include the requirements for PM_{2.5} to support the amendments to Chapter 127. Specifically, the existing term “significant” is revised to establish a threshold for PM_{2.5} and PM_{2.5} precursors at major modifications at existing sources and the existing term “regulated NSR pollutant” is revised to include PM_{2.5} and to identify precursors for PM_{2.5}. The amendments delete the term “maximum allowable emissions” since the term is no longer used to support existing regulations in Pennsylvania and the term is not used in the federal rules, set forth in 40 CFR 51.165, for nonattainment New Source Review SIPs.

The amendments submitted by Pennsylvania for approval into the SIP were adopted by Pennsylvania on May 18, 2011 and became effective on September 3, 2011. They include revisions to certain definitions at 25 Pa. Code 121.1, as well as to Chapter 127, Subchapter E (nonattainment NSR). The following regulations under Chapter 127 are revised: Section 127.201 (General requirements), Section 127.201a (Measurements, abbreviations and acronyms),

Section 127.202 (Effective date), Section 127.203 (Facilities subject to special permit requirements), Section 127.203a (Applicability determination), Section 127.204 (Emissions subject to this subchapter), Section 127.206 (ERC general requirements), and Section 127.210 (Offset ratios).

III. Proposed Action

EPA's review of the revisions submitted by Pennsylvania for approval into the SIP finds them consistent with their federal counterparts. EPA is proposing to approve the Pennsylvania SIP revision to incorporate federal preconstruction permitting requirements for PM_{2.5} and PM_{2.5} precursors in nonattainment areas along with clarifying amendments, which was submitted on September 23, 2011. EPA is soliciting public comments on the issues discussed in this document. These comments will be considered before taking final action.

IV. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);

- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule pertaining to NSR requirements for PM_{2.5} does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Authority: 42 U.S.C. 7401 et seq.

Dated: March 19, 2012.

W. C. Early, Acting
Regional Administrator,
Region III.

[FR Doc. 2012-7573 Filed 03/28/2012 at 8:45 am; Publication Date: 03/29/2012]